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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/884,138	06/20/2001	Mitsuru Uchiyama	AAO-256	2473

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EXAMINER

PATEL, NIHIR B

ART UNIT PAPER NUMBER

3743

DATE MAILED: 07/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/884,138

Applicant(s)

UCHIYAMA ET AL.

Examiner

Nihir Patel

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3743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Referring to claim 1, there is insufficient antecedent basis for limitations “the cylinder”, “the nasal cannula”, “the oxygen therapeutic gas”, “the conduit”, “the valve”, and “the pressure sensor”.

Referring to claim 2, there is insufficient antecedent basis for limitations “the controller” and “the oxygen therapeutic gas”.

Referring to claim 3, there is insufficient antecedent basis for limitations “the valve”, “the controller”, and “the solenoid”.

Referring to claim 4, there is insufficient antecedent basis for limitations “the pressure sensor”.

Referring to claim 5, there is insufficient antecedent basis for limitations “the controller” and “the pressure sensor”.

Referring to claim 6, there is insufficient antecedent basis for limitations “the controller”.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 through 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kloeppel U.S. Patent No. 5,865,174. Referring to claim 1, Kloeppel discloses a supplemental oxygen delivery apparatus and method that comprises a cylinder (28) for containing a pressurized oxygen therapeutic gas; a nasal cannula (44), adapted to be introduced into a nasal passage of a patient; a conduit (42 and 48) extending between the cylinder and the nasal cannula (44) for directing the oxygen therapeutic gas to the nasal cannula (44) from the cylinder (28); a pressure sensor (58), provided on the conduit (42 and 48), for detecting the pressure in the conduit (42 or 48); a valve (72), provided on the conduit (42 or 48), for allowing and blocking the fluid communication between the cylinder (28) and the nasal cannula (44); a controller (64) for controlling the operation of the valve (72) in synchronization with the respiration of a patient based on the changes in the pressure detected by the pressure sensor (58), the volume of the oxygen therapeutic gas passing through the valve for each respiration being increased, compared with a normal respiration condition, when the respiratory frequency increases. Refer to figure 3 and columns 5 through 8.

Referring to claim 2, Kloeppel clearly shows that the controller (64) compares the respiratory frequency with a threshold to increase the volume of the oxygen therapeutic gas for

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each respiration when the respiratory frequency is larger than the threshold. Refer to column 7 lines 35 through 45.

Referring to claim 3, Kloeppel clearly shows that the valve (72) is a solenoid operated valve having a solenoid, and the controller (64) controls the solenoid to open the valve for a time period sufficient for a volume of the oxygen therapeutic gas to flow therethrough for each respiration. Refer to column 7 lines 25 through 35.

Referring to claim 4, Koeppel shows that the pressure sensor (58) is an electric capacitor type pressure sensor (58) having a capacitor of which the electrostatic capacitance represents the detected pressure.

Referring to claim 5, Koeppel clearly shows that the controller (64) determines the initiation of each respiration by monitoring the changes in the pressure detected by the pressure sensor (58). Refer to figure 3 and column 9.

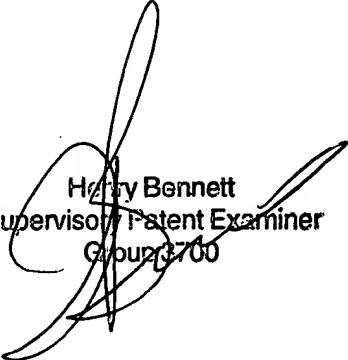
Referring to claim 6, Koeppel shows that the controller (64) calculates the respiratory frequency by measuring the time interval between the initiations of sequential respirations. Refer to column 9.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Nihir Patel whose telephone number is (703) 306-3463. The examiner can normally be reached on Monday-Friday from 7:30 am to 4:30 pm. If attempts to reach the examiner by telephone are unsuccessful the examiner supervisor Henry Bennett can be reached at (703) 308-0101.

NP
March 12, 2002


Henry Bennett
Supervisor Patent Examiner
Group 3700